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July 1969

● **KENNEWICK**

SOIL
GUIDE SHEET

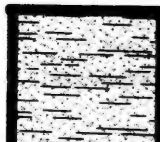
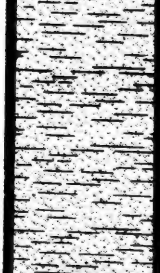
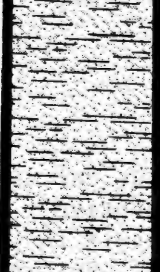
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These are well-drained, deep, medium-textured soils. They developed under bunch-grass in lake laid materials. They occupy nearly level to moderately steep terraces at elevations of 550 to 700 feet. They occur mainly south of the city of Kennewick within the irrigated area. These soils are associated with the Scootney and Warden soils and are found in Benton and Grant Counties.

Representative Description:

KENNEWICK silt loam

<u>Water Holding Capacity</u> In/in	<u>Permeability</u> In/hr	<u>Shrink-Swell Potential</u>	<u>Engineering Classification</u> Unified AASHO	
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1'-		<u>Surface layer:</u> 0-10", grayish-brown silt loam; massive, slightly hard, friable; strongly calcareous; pH 8.4	.22	0.63-2.0	low	ML	A-4
2'-		<u>Subsoil:</u> 10-40", grayish-brown silt loam; finely laminated, slightly hard, friable; strongly calcareous; pH 8.4	.23	0.63-2.0	low	ML	A-4
3'-		<u>Lower substratum:</u> 40-60", dark gray silt loam; finely laminated, hard, firm, fragments of limestone; pH 8.5-9.0	.23	0.63-2.0	low	ML	A-4
4'-							
5'-							

Caution: All Kennewick soils are not exactly like the one shown above. Differences in characteristics will affect suitability and limitations for uses. See Capability Classification table.

ABOUT THE SOIL GUIDE SHEETS: Soil Guide Sheets are written primarily to indicate suitability for irrigation farming. In addition, some engineering properties are shown. These will serve as a preliminary guide but on-site investigation will be needed before making final decisions on non-agricultural uses. Certain terms and soil ratings may not be self explanatory. Refer to "Guide to the Use of Soil Guide Sheets".

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	<u>Capability Classification</u>	<u>(percent slope)</u>				
		0-2	2-5	5-15	15-25	25-40
Kennebec soils						
1. Silt loam ^{1/}	IIs	IIe	IIIe	IVe	VIe	

Determine the depth of your soil. Depth affects use and management. Total water holding capacity is less on shallower soil.

Suitability as a source of:

- Topsoil - Good
- Sand - Not suitable
- Gravel - Not suitable
- Road Fill - Fair

Soil features affecting engineering uses:

- Highway location - Moderate permeability, moderate susceptibility to frost action, moderate shrink-swell potential
- Dikes, Levees, Embankments - Low stability, susceptible to piping and cracking, moderate shrink-swell potential, impervious when compacted with close control
- Reservoir - Moderate permeability
- Septic disposal systems - Moderate permeability

Suitability for irrigation farming:

- Water holding capacity - High
- Infiltration - Slow
- Permeability - Moderate
- Drainage - Well drained
- Salinity and alkali hazard - Low to moderate, strongly alkaline in lower profile
- Erosion hazard - Slight

General Evaluation: Kennebec soils are productive under irrigation, but certain hazards are apparent. The soils are deep, but hard subsoil may limit rooting depth initially under irrigation. Calcareous nature of the soil may result in nutritional problems. Grapes and tree fruits may suffer from chlorosis. Suitable for most field crops grown in the area. Have your soil tested to determine fertilizer needs. Suitable for rill or sprinkler irrigation.

^{1/} Deep and very deep soils (40"+) with no inhibiting layers in the profile.

This Soil Guide Sheet was prepared by A. I. Dow, Extension Soils Specialist, Washington State University in cooperation with Jack J. Rasmussen, Soil Scientist, Robert F. Mitchel, State Soil Scientist, Soil Conservation Service, USDA; and Mel A. Hagood, Extension Irrigation and Water Use Specialist, Washington State University